

## **AMENDMENTS TO THE SPECIFICATION**

- In the published application, please replace the paragraph under the heading "Abstract" with the following:

A method of simulating a transformation in a biological system is disclosed. The method includes modeling the biological system by one or more data represented tangible biological functional entities, the state of each tangible biological entity being represented by values assigned to occurrences in a metamodel comprising a morphological occurrence, a spatial occurrence, and a temporal occurrence. The method further includes representing the behavior of the biological system over time by the trajectory of the states of each data represented biological functional entity in a frame of reference consisting of shape, time, and space, by recursively determining, for each data represented biological functional entity, the effects of the changes in the values assigned to the occurrence on the functioning of the biological functional entity.

- In the published application, please amend paragraph [0052] as follows:

The status of each biological functional entity is defined at all times by the ~~time and space~~ values of these morphological, ~~temporal and spatial~~ occurrences and the behavior of the biological system over time is represented by the trajectory of the states of each biological functional entity in the frame of reference (shape, time, space).